



BOROUGH OF THETFORD



ANNUAL REPORT  
of the  
MEDICAL OFFICER OF HEALTH  
together with the  
REPORT OF THE  
PUBLIC HEALTH INSPECTOR  
FOR THE YEAR

**1962**



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**1962**

STAFF:

Medical Officer of Health:

A. S. Dunn, L.R.C.P., L.R.C.S., D.P.H., D.C.H.

Public Health Inspector:

R. C. R. Robinson, M.A.P.H.I., A.R.S.H.

Municipal Offices,  
THETFORD,  
Norfolk.

Mr. Chairman, Ladies and Gentlemen,

I have the honour to present my Annual Report for the year 1962:-

Vital Statistics:

The Registrar General estimated that at mid-year the population of the Borough was 5,920 an increase of 8% on last year's figure of 5,470. In the years 1959 to 1961 growth was of the order of 6% per annum, so the rate of population expansion is speeding up. A like increase each year would take us to over 10,000 inhabitants in 1969 - double the 1959 population. Should the immigration to the district increase at a higher rate still, which seems likely considering the building programme for 1963 and 1964, a five-figure population may be achieved even earlier.

<u>Births:</u>	170	<u>Deaths:</u>	87
Live Births:	164	Legitimate stillbirths:	5
Stillbirths:	6	Illegitimate Live births:	6

Of the live births, 3.8% were illegitimate

(England & Wales 6.4%)

Birth Rate (Crude):	27.7	Death Rate (Crude):	14.7
Birth Rate (Adjusted):	26.9	Death Rate (Adjusted):	10.1



## Comparative Table

Rate*	Thetford	Norfolk	England
Birth .. .. .	26.9	<sup>17.50</sup> <del>16.10</del>	18.0
Death .. .. .	10.1	<sup>10.60</sup> <del>12.06</del>	11.9
Infant Mortality .. .. .	24.4	14.42	21.4
Maternal mortality .. .. .	Nil	Nil	0.35
Stillbirth .. .. .	35.3	17.71	18.1
Neonatal mortality .. .. .	12.2	10.66	15.1
Early Neonatal mortality ..	12.2	8.78	Not available
Perinatal mortality .. ..	47.1	26.33	Not available
Legitimate Infant mortality	25.3	12.6	Not available
Illegitimate Infant mortality	Nil	47.48	Not available

\*For definitions see Appendix B.

### Comment

We continue to have a low death rate and a high birth rate, a most agreeable situation.

There were however six stillbirths and four deaths in infancy, yielding unfavourable rates compared with the country generally. Study of the ante-natal and delivery room notes which apply to the six stillbirths does not however suggest that the outcome could have been different. Maternal tuberculosis was a factor in two cases; prematurity in two others (birth weight under  $3\frac{1}{2}$  lbs.); malposition of the child, and maternal toxaemia accounting for the remaining.

Two children died in the first week of life, one from prematurity and the other as a result of maternal toxaemia. Two other infants died, one from inhaling vomit while suffering from gastro-enteritis, the other from pneumonia

complicating infantile eczema: some infants with this last complaint have a markedly lowered resistance to infections. On the evidence, it seems that these deaths were unavoidable.

The illegitimacy rate is again lower than the national level.

### Deaths

#### Causes of Death as Registered in 1962

	Male	Female
1. Tuberculosis, respiratory	-	-
2. Tuberculosis, other	-	-
3. Syphilis	1	-
4. Diphtheria	-	-
5. Whooping Cough	-	-
6. Meningococcal infections	-	-
7. Acute Poliomyelitis	-	-
8. Measles	-	-
9. Other infective and parasitic diseases	-	-
-----		
10. Malignant neoplasm, stomach	-	-
11. Malignant neoplasm, lung and bronchus	1	-
12. Malignant neoplasm, breast	-	1
13. Malignant neoplasm, uterus	-	-
14. Other Malignant Disease	7	4
15. Leukaemia, aleukaemia	-	-
16. Diabetes mellitus	-	1
-----		

	Male	Female
17. Vascular lesions of nervous system	5	10
18. Coronary disease, angina	10	2
19. Hypertension with heart disease	-	-
20. Other heart disease	7	16
21. Other circulatory disease	1	-
-----		
22. Influenza	-	-
23. Pneumonia	3	1
24. Bronchitis	3	1
25. Other diseases of respiratory system	-	-
-----		
26. Ulcer of stomach and duodenum	1	1
27. Gastritis, enteritis and diarrhoea	1	-
28. Nephritis and nephrosis	1	-
29. Hyperplasia of prostate	-	-
30. Pregnancy	-	-
31. Congenital malformations	-	-
32. Other diseases	4	3
33. Motor vehicle accidents	-	-
34. All other accidents	1	1
35. Suicide	-	-
36. Homicide	-	-
-----		

MALE DEATHS: 46

FEMALE DEATHS: 41



### Age at Death

	-1	1+	5+	10+	20+	30+	40+	50+	60+	70+	80+	90+
Male	2	-	-	2	-	1	2	4	8	13	12	2
Female	2	-	-	1	-	1	1	2	5	10	16	3
Total	4	-	-	3	-	2	3	6	13	23	28	5

Death is most commonly ascribed to disease of the heart and blood vessels, particularly in the aged. In most cases, it is but a part of a general wearing out process affecting other organs too. The other important fatal diseases are the malignant growths.

In addition to the deaths in infancy discussed earlier, there were five persons who died under the age of forty. Three were adolescents, one had a tumour, another died from late complications of an appendix abscess, and the third was drowned when he fell from a small boat which was being hoisted aboard ship. Two other people died young, one from a tumour, one from a ruptured blood vessel in the brain.

### Tuberculosis

There were no deaths locally from this disease in 1962. At the end of the year, there were four more cases on the register, as would be expected with a larger general population.

### Tuberculosis Register - Thetford M.B.

Year	Respiratory T.B.			Non-Respiratory T.B			Grand Total
	Male	Female	Total	Male	Female	Total	
1962	13	11	24	4	2	6	30
1961	10	12	22	3	1	4	26
1960	8	8	16	3	1	4	20
1959	11	10	21	3	1	4	25

## B.C.G. Vaccination

This protection against tuberculosis is offered to schoolchildren at or about 13 years old. In County Health Area 6 (which covers the area of Wayland R.D., Swaffham R.D., Thetford M.B. and Swaffham U.D.), there were 491 children eligible and 77% (378) of parents agreed to the vaccination. 44 children were found on testing not to require this; of the 334 who remained, 61 were absent either on the test day or the vaccination day (there is a week's interval between these), so 273 were actually vaccinated. Thus of the group of 491 children, 9% had already some immunity to tuberculosis, and to a further 56% some immunity was conferred by B.C.G. vaccination, leaving 35% whose immune state was unknown (23% non-acceptors and 12% absentees). Although I should like to see an even higher proportion of these children tested, I think the fact that 77% of parents agreed to the procedure shows how readily the public now accepts the practice of preventive medicine.

## Smallpox

As a result of the renewed discussion in medical journals on the timing of smallpox vaccinations, an expert committee considered the matter and gave as their view that there seemed no advantage in vaccinating children before the age of one year. The committee felt, however, that routine child vaccination should continue. During 1962, 1049 primary vaccinations and 792 revaccinations were done in this County Health Area. There was 1 generalised vaccinia following the procedure, but no deaths.

## Poliomyelitis

The number of persons who have completed a three-dose course in Area 6 is 14,474. As there are 38,000 people in the area, and only those under 40 years old are eligible, it follows that a very high proportion of these have been immunised. At the end of 1961, the comparable figure was 10,837.



Most of the vaccine used in 1962 was given by mouth and only 167 persons preferred to complete with the Salk vaccine used for earlier doses.

Schoolchildren between 5 and 12 years old are given a fourth dose to keep immunity at peak levels. We has a big push on this front in 1961 (2,731 such given) and this year only the new entrants and a few missed in last year's drive had to be done (380).

### Measles

This disease followed its usual pattern of a bumper year being followed by one with only a few cases. Only one case was notified in Thetford in 1962. The presumption is that it takes two years for enough susceptible individuals to accumulate in the population to permit ready spread of the infection.

### Diphtheria

Again no cases reported locally and only 64 nationally, the lowest figure ever recorded. The percentage of Norfolk schoolchildren reckoned to be fully protected is 54. In the years 1961, 1960 and 1959, the figures were 53%, 43% and 36%. We should like to see an even higher proportion protected.

### Diphtheria Immunisation - Health Area 6

<u>Year of Birth</u>	<u>Primary course completed in 1962.</u>	<u>Reinforcing Doses 1962</u>
1962	136	-
1961	259	-
1960	56	22
1959	16	11
1958	8	6

Continued on opposite page.

## Diphtheria Immunisation - Health Area 6 Continued.

<u>Year of Birth</u>	<u>Primary course completed in 1962.</u>	<u>Reinforcing Doses 1962</u>
1953 - 1957	63	168
1948 - 1952	313	621
	<u>851</u>	<u>828</u>

## Whooping Cough

There were 11 notifications this year. Generally, the disease was not prevalent, with 8,326 notified cases in England and Wales.

## Whooping Cough Immunisation - Health Area 6

<u>Year of Birth</u>	<u>Primary courses completed in 1962</u>
1962	160
1961	240
1960	52
1959	17
1958	12
1953 - 1957	16
1948 - 1952	3
	<u>500</u>

## Tetanus

There were no cases in this area.

## Tetanus Immunisation - Health Area 6

<u>Age</u>	<u>Primary courses completed in 1962.</u>	<u>Reinforcing Doses in 1962</u>
Under 16 years	565	127
Over 16 years	381	40
	<u>946</u>	<u>167</u>

#### Infectious Disease Notification, 1962.

Scarlet Fever	6	Enteric fevers	0
Whooping Cough	11	Erysipelas	2
Poliomyelitis	0	Food poisoning	0
Measles	1	Tuberculosis	3
Diphtheria	0	Puerperal Pyrexia	0
Meningococcal infections	0	Ophthalmia Neonatorum	3
Acute pneumonia	0	Dysentery	0
Smallpox	0	Anthrax	0
Encephalitis	0		

#### Miscellaneous Notes on Health Topics

##### Hospital Plan

The hospital service is scheduled for an £800 million development over the next 10 to 15 years. The basic concept of the plan is that a district general hospital with 300 to 500 beds will serve 100,000 to 150,000 population in its area. There would, of course, be flexibility around these figures to suit local needs. Such a district hospital would cover medical and surgical cases, adults and children. The usual special departments would be housed. In addition, a maternity unit, a short stay psychiatric unit and a geriatric (aged-sick) unit would be a part of the district hospital. The advantages of concentrating staff and equipment in one place do seem to outweigh the admitted difficulty that patients



and visitors have longer distances to travel. The closure of many smaller hospitals is a necessary corollary to the plan. Some will be retained but not usually for acute cases, serving as outpatient consultative clinics or for the housing of the aged chronic sick.

The effect locally will be that the aged sick provision at St. Barnabas will be discontinued somewhere around 1970-75, depending on the completion of a geriatric unit at the West Suffolk General Hospital, Bury St. Edmunds. Thetford Cottage Hospital's function will probably remain unaltered in its use until at least 1975.

### Medical Manpower.

A shortage of doctors in training relative to needs has been developing for some years. This has been made good in the hospitals by the employment of Commonwealth and foreign medical graduates, as is evident to anyone using that service. Around 40% of hospital medical staff below consultant level now employed were born outside the British Isles. Between 1939 and 1958 despite the increasing complexity of modern medicine and improved services the output of medical graduates went up only 7% (in dentistry 93%, veterinary surgery 356%, technology 162%, science 183%). Outweighing this modest increase has been the emigration of medical men. About 1,800 doctors qualify here each year and the loss by emigration is about 600. The emigrants are, of course, not exclusively new graduates but also those with experience. This number do not "vote with their feet" unless there is widespread dissatisfaction with medicine as a career here. There is a brisk demand for immigrant physicians in the United States, where their doctor shortage was considered important enough to be mentioned in the President's State of the Union address. Six new medical schools are being started there this year. We should be planning similar expansion.

### Thalidomide

First manufactured in Germany and later in Britain. A

sedative with no danger of producing addiction, it seemed preferable to phenobarbitone and the like. After it had been on the market some time there were reports that a few adults on the drug developed tingling in the hands and feet, suggesting neuritis was being produced. An increase in the number of children born with stunted limbs was reported. Eventually, the link was established between thalidomide taken in early pregnancy and such deformities in the newborn. The manufacturers withdrew thalidomide from the market in December 1961. There should therefore be no thalidomide babies after September, 1962. Unfortunately, there will still be children born with limb deformities from causes unknown. They will benefit from the increased interest in such handicaps and any advance in prostheses.

There were about 450 thalidomide-damaged children live-born in the years 1960-62 in Britain. About 350 are still alive. In Germany, there are somewhere over 3,000 such children. Fortunately, the handicap is purely physical; the intelligence is not impaired. As with all handicapped children, it is surprising how much they can do given help and training. This last should start early in the first year in the case of thalidomide babies. There are limb-fitting centres throughout the country which are run by the Ministry of Pensions. The parents of affected children hope to supplement State facilities rather as the Spastics Society has already done in that field.

### Testing of New Drugs

There was some public disquiet that no official agency checked on new drugs before they were marketed in Britain. Now in the U.S.A., The Food and Drugs Administration issues licences for manufacture or import of drugs and their scientific staff must be satisfied as to safety and purity before marketing is allowed. There is no doubt that the vigilance of one woman doctor in that Federal department prevented thousands of children being born deformed. Oddly enough, her suspicions of thalidomide were probably raised by a report from an Aberdeen family doctor of neuritis in an adult taking thalidomide. There is, however, no guarantee that had we had a



similar Government agency, we should have been spared our thalidomide injuries (West Germany had such a body). Nevertheless, it does seem reasonable to have someone other than the manufacturer decide when a drug has been adequately tested. There is to be (1963) such an independent assessment in Britain in the future. It is to be hoped that adequate resources, physical and financial, are provided to do the job as well as can be: but all risk cannot be eliminated from treatment - medicaments innocuous to the generality, from aspirin to penicillin, are lethal to the unfortunate few.

### Animal Experiments

These are essential to advance in surgical techniques. It is understandable that practice on the animal heart was necessary before reconstructive heart surgery on children could be attempted; that organ transplanting from animal to animal had to be studied to determine the possible value of such procedures to human recipients and the danger if any to the donors; that the reaction to an artificial valve inserted in the spinal fluid circulation of the animal brain had to be known before use in babies with hydrocephalus (water on the brain). Incidentally, the engineer father of such a child designed the apparatus and it was used successfully.

A small minority of animal experiments is on these lines. The bulk are for such varied purposes as testing material from a human patient for the presence of tubercle (inoculated into a guinea pig); the growing of vaccinia virus for smallpox vaccination (on the belly skin of calves); identification of virus type (mouse brain, monkey brain, rabbit skin in yellow fever, poliomyelitis and smallpox respectively). Serum for treating diphtheria and tetanus is obtained from blood let from previously immunised horses. The horses are as little upset by this as are human blood donors.

The effectiveness and safety of batches of protective sera also have to be tested on animals. New drugs are tested on animals to find out possible dangerous side effects to their main therapeutic one.

All places where animals are used for these purposes must be licensed by the Home Secretary and the research worker himself must also be licensed. The relevant statute is The Cruelty to Animals Act, 1876. Spot checks are done by medical inspectors of the Home Office, who are chosen for their background in research of this kind.

The R.S.P.C.A. feel that the control of experiments is not as good as it should be. It is unfortunate that their publicity material on the subject this year was rather sensational and gave the impression that there was widespread needless cruelty in the laboratory. After all, it was open to the Society to make complaints to the Home Office on any facts known to them and if still unsatisfied to have questions asked in the House.

### Smoking and Lung Cancer

The Royal College of Physicians published a report on this subject in March. The report added no new evidence but reviewed studies of the previous decade. The conclusion was that the link between smoking and lung cancer was established beyond all reasonable doubt. The Ministry of Health issues posters and a few hospitals are running anti-smoking clinics but these measures are hardly competing on equal terms with tobacco advertising running at around £10 million a year. Even one of the posters ran into trouble, apparently on the grounds that the message "cigarettes cause cancer" offended advertising ethics: perhaps the statement was too sweeping and as it did not apply to every smoker was not an absolute truth: it was banned from some bill-boards. Perhaps we can look forward to other products being similarly censored and we may read on the hoardings: "If you are eighteen years old or over, and provided there is no history of alcoholism in the family and furthermore that you do not suffer from liver-disease or contemplate driving after excessive consumption of our product then in our opinion it is unlikely that "X" will not be good for you."

It would seem more logical to limit tobacco advertising



by law rather than indulge in a poster battle. There are other ways of helping those trying to cut down or giving up smoking. A few years back one of the most successful multiple stores banned smoking for employees and customers alike: they still prosper. The atmosphere in cinemas and buses is often foul; would "No smoking" really be such a hardship?

### Drinking Drivers

It is generally accepted that alcohol is a factor in the genesis of many motor accidents, although there may be insufficient evidence for it to be mentioned in subsequent charges. For example, if the offending driver is injured and taken to hospital, treatment may take time enough for him to sober up before a statement is taken by the police. Shock is a handy alternative explanation of incoherent speech, unsteady gait etc., at the scene of the accident. Recently the blood alcohol level of 239 drivers taken to hospital after accidents showed the following results (blood alcohol above 50 milligrammes per cent = judgment necessarily impaired)

Noon	- 6 p.m.	10% drivers)	} ABOVE 50 Milligramme level
6 p.m.	- Midnight	33%	
Midnight	- 6 a.m.	58%	

Not one was subsequently charged with driving under the influence of alcohol. Of course other charges, dangerous driving, careless driving were alternatives. Remember that a high proportion of those charged with driving under the influence who elect to go for jury trial are acquitted so the standard of proof required of the police is high: it is understandable if charges with less difficulties for the prosecutor are preferred.

The Road Traffic Act, 1962 may make it easier to punish offenders. If a driver's ability is impaired by alcohol an offence has been committed (formerly he had to be incapable of proper control of the vehicle). Also if a driver refuses to allow urine, breath or blood samples to be taken for analysis this refusal can be regarded as support for the



prosecution's case. If analysis is done, the results are admissible in evidence. Now officially levels of alcohol in the blood have not been recognised and set at safe and dangerous readings. But the courts are likely to have regard to the practice elsewhere in Europe and to expert opinion here. Both agree that blood alcohol above 50 milligrammes % is incompatible with safety and that above 150 milligrammes % proper control of the vehicle is lost. These levels would be reached after drinking  $1\frac{1}{2}$  pints or 4 pints of beer respectively. One for the road may mean one for the morgue.

I have the honour to be, Mr. Chairman,  
Ladies and Gentlemen,

Your obedient Servant,

A. S. DUNN,

Medical Officer of Health.

## Appendix A - Health and Welfare Services provided by Norfolk County Council

These include the care of mothers and young children; supervision of the health of the schoolchild; immunisation against diphtheria, poliomyelitis etc.; home nursing and midwifery; home help service; advice on the care of those handicapped physically or mentally. Information on such services may be had from the Local Health Office, Tanner Street, Thetford. Telephone 3286 and 3341.

## Appendix B - Derivation of Statistical Rates

Adjusted Birth Rate:	(Live births per 1000 population) x comparability factor for births.
Adjusted Death Rate:	(Deaths per 1000 population) x comparability factor for deaths.
Comparability Factors:	Allow for variation between areas, e.g. in the proportion of women of reproductive age and in the age/sex structure of population.
Infant Mortality Rate:	Deaths at under 1 year per 1000 live births.
Legitimate I.M.R.:	Deaths of legitimate infants per 1000 illegitimate live births.
Illegitimate I.M.R.:	Deaths of illegitimate infants per 1000 illegitimate live births.
Maternal Mortality Rate:	Deaths attributable to pregnancy per 1000 total births.
Stillbirth Rate:	Stillbirths per 1000 total births.
Perinatal Mortality Rate:	(Stillbirths and Early Neonatal Deaths) per 1000 total births.
Neonatal Mortality Rate:	Deaths at under 4 weeks per 1000 live births.
Early Neonatal Mortality Rate:	Deaths at under 1 week per 1000 live births.

Appendix C - Comparisons with Previous Years

	1962	1961	1960	1959	1958	1957
Estimated Population	5,920	5,470	5,180	4,910	4,790	4,750
Total Births	170	125	106	88	79	97
Stillbirths	6	1	4	1	3	1
Stillbirth Rate	35.3	8.0	37.6	11.45	37.9	10.3
Deaths	87	76	74	67	74	62
Death Rate (Crude)	14.7	13.9	14.2	13.6	15.4	13.1
Infant Deaths	4	1	0	2	3	1
Infant Mortality Rate	24.4	8.1	Nil	23.4	39.4	10.4
Birth Rate (Crude)	27.7	22.7	19.8	17.4	15.9	20.2

ANNUAL REPORT OF THE PUBLIC HEALTH INSPECTOR  
FOR THE YEAR 1962

Mr. Chairman, Ladies and Gentlemen,

I have pleasure in presenting my annual report for the year 1962, on the sanitary circumstances in the District. The report is compiled in accordance with the requirements of Ministry of Health Circular No. 1/63.

New Legislation

There was little new legislation affecting public health work brought into force during 1962, but that possibly was to be expected after the spate of new legislation brought on to the Statute Book in 1961.

New Regulations, Orders, Circulars were issued by government departments on Improvement Grants, Houses in Multiple Occupation, Clean Air, Landlord and Tenant Act, Food Hygiene and regulations regarding the sale of Oil Heaters.

WATER SUPPLY

The public supply is taken from a deep well into chalk which is situated to the north of the town and from two boreholes to the south of Barnham Cross Common. The water from each source is chlorinated before passing into the supply mains.

With a total water storage capacity of 820,000 gallons feeding into the town mains, it was not necessary to impose any restrictions on the use of water during the year and the water undertaking was able to meet all the growing demands of domestic and industrial users and for the increased requirements for building work etc., in the areas of development taking place under the Council's Town Expansion Scheme.

From information supplied by the Water Engineer,



approximately 359,000 gallons of water were pumped per day of which 162,000 gallons per day were used for industrial purposes, leaving 197,000 gallons per day for domestic use.

The average domestic consumption per head per day amounted to 30 gallons. On an estimated population of 6,500, trade consumption amounted to 25 gallons per head of population giving a total overall consumption of 55 gallons per head per day.

Water samples were taken at intervals throughout the year and submitted to the Public Analyst and the Public Health Laboratory Service for Chemical and Bacteriological examination. Copies of the Chemical Analysis Reports are given as an appendix. The results of the samples sent for bacteriological examination were highly satisfactory and results are given at the end of this report.

Practically all houses within the district have a piped water supply either direct into the house or to within the curtilage of the house. Six occupied houses situated on the extreme boundaries of the district take their water from wells or bores and samples taken from these sources showed the water to be wholesome and fit for drinking purposes.

The water mains were extended as follows to provide a public supply to private development sites, Council Estates and the London County Council Residential and Industrial Estates:-

3 inch mains	-	234 yards
4 inch mains	-	2,118 yards
6 inch mains	-	1,232 yards

#### BATHING STATION ON RIVER

Samples of water from the River Little Ouse were submitted to the Public Health Laboratory Service for Bacteriological examination and samples were also taken by



the Pollution Prevention Officer of the Great Ouse River Board during the bathing season, in order to detect any heavy pollution which could have occurred.

With the results of the examinations and analyses, together with frequent inspections of the river banks and investigations at possible sources of pollution upstream from the bathing station (i.e. Barnham sewage disposal works and various watercourses), it was considered that the river water was "clean" and safe for bathing purposes.

### DRAINAGE AND SEWERAGE

A new sewer was laid and a pumping station constructed along the Brandon Road to take in the new private development site at Redcastle Furze. Plans were also discussed for the extension of the Sewage Disposal Works to cope with the increased number of houses and factories springing up under the Town Expansion Scheme.

During the year, 17 properties with sanitary accommodation consisting of pail or vault closets were connected to the sewer. This now leaves but a few properties not connected and in most cases these properties will be affected either by slum clearance, the Town Centre Development Plan or by new road patterns. Twenty applications for grant towards conversions were received and authorised for payment by the Council.

The position at December, 1962 was as follows:-

Number of occupied properties with pail closets	.. ..	63
Number of occupied properties with vault closets	.. ..	9
Number of occupied properties with W.C's to cesspools	..	50

### Conservancy

The weekly collection of soil, from premises with pail closets, has been carried out by Contract.

Vaults and cesspools were emptied, as required, by contract and as a free service to the occupiers. The number of vaults and cesspools emptied in this way was as follows:-

Cesspools	..	..	..	..	28
Vaults	..	..	..	..	4

#### REFUSE COLLECTION AND DISPOSAL

The collection of refuse was carried out on a weekly basis and covered the whole district except for approximately eight properties which, because of their extreme isolation from the collection routes, cannot be accommodated. The collection was direct from the houses and, where possible, rear collections were made. The type of vehicle used was a "Karrier" side loading, rear tipping vehicle of 12 cubic yards capacity, manned by a Driver-loader and 3 loaders, but in October, this was replaced by a Dennis Paxit Major II Refuse Collector of 22/30 cubic yard capacity.

Provision was made for the collection of Trade Refuse at a fixed quarterly charge which varied with the number of bins collected from each premises.

The disposal of refuse was by semi-controlled tipping at a disused pit outside the built-up area of the town. The refuse was put down by a tractor and blade as and when required.

Refuse tips, particularly those where only semi-controlled tipping is carried out, usually afford an excellent home for rats with good cover, warmth and a constant supply of food. Although, during the autumn and winter, vermin converged on the refuse pit from the surrounding countryside, they were very quickly killed off by the Rodent Operator with the use of a gas pump and cyanide powder. This treatment was found to be so successful that the tip was kept almost completely rat free throughout the whole year.



## HOUSING

### (i) General

The number of dwellings, including Council houses, occupied in the District according to the Rate Book was 2,010 and the estimated population figure was 6,500. Based on these figures, the average number of persons per dwelling is 3.23.

185 new dwellings were erected during the year, 53 of which were built by private enterprise leaving 132 Council houses.

### (ii) Unfit dwellings - Action under the Housing Acts

Towards the end of 1961, nineteen Demolition Orders were made and a further eight dwellings were represented to the Public Health Committee as unfit for human habitation and not capable of being repaired at reasonable cost. The Council purchased twenty of these dwellings by agreement and these were demolished during 1962. Agreement was also reached on the compulsory purchase price of dwellings included in the St. Mary's Row Clearance Areas and those properties left standing were demolished.

A dwelling, which was the subject of a demolition order but had been allowed to stand because of its position in a row of terraced property, was permitted to be used as a store and a Closing Order was substituted for the Demolition Order.

A summary of action taken under the Housing Act is as follows:-

Individual Unfit Houses Demolished .. .. .	28
Houses demolished in Clearance Areas .. .. .	12
Houses Closed .. .. .	3
Families displaced .. .. .	4

As a result of routine inspections and visits to investigate complaints from tenants, informal action was taken to remedy some defect or other at 59 houses.

(iii) Improvement Grants

Again, I have to report that few owners took advantage of the facilities provided under the Housing Acts to improve their houses with the aid of a grant through the Council and it is felt that this may be due somewhat to future proposals for redevelopment and road construction.

The usual improvements covered by the "Standard Grant" were for the installation of baths, wash basins, hot and cold water supply, water closets and facilities for the storage of food. 5 only applications were made and approved. The amount of grant aid paid to applicants during the year amounted to £645 0s. 0d.

The "Discretionary Grant" is made to help owners to modernise houses by carrying out more extensive works than are covered by the Standard Grant. The grant is conditional upon the house being brought into a good state of repair and to that end detailed inspections of each house were made and full schedules of the works required were prepared and forwarded to the applicant. 2 only applications were received during the year and the amount of aid paid to them was £460 0s. 0d.

Other enquiries were made about the two forms of grants, but on visiting the properties concerned and explaining the requirements necessary to obtain a grant, the owners lost interest for one reason or another.

(iv) Common Lodging Houses

There were no registered common lodging houses in the district.



## Dirty and Verminous Houses

Filthy and verminous premises cause very little concern nowadays but three new cases of dirty dwellings were found during the year and disinfestation of these houses against fleas was carried out by the department. Informal notices served on the tenants to thoroughly clean their houses were complied with.

Three disinfestations were also carried out at one premise to destroy a cockroach infestation.

## Infectious Diseases

Investigations were made at 7 houses from which cases of scarlet fever and tuberculosis were notified. Disinfection of the house had been requested by the occupier where there had been a case of Tuberculosis.

## Moveable Dwellings (Caravans)

Under the Caravan Sites and Control of Development Act, 1960, one Site Licence was granted and that was for one caravan only.

Considerable trouble was encountered with the parking of unauthorised caravans and tents during the summer months on the various common lands to the north, south and east of the town and also on private land. Many enquiries were received from private individuals, various Clubs and Scouts for permission to camp at Two Mile Bottom Common. Some campers and caravanners having parked without asking for permission have been most indignant when asked to move. They felt that facilities should be provided at sites such as this and that camping should be authorised and encouraged.



## SANITARY INSPECTION OF THE AREA

The following table summarises the inspections made during the year by your Public Health Inspector:-

Description	Inspections	Informal notices	No. abated
Drainage of Premises	76	19	19
Survey of house drainage for connection to new sewer	17	-	-
General Nuisances	98	36	34
Infectious Diseases	8	-	-
Rats and Mice	See Section	1 disinfection	
Dangerous Structures	21	"Damage by Pests Act, 1949"	
Verminous and filthy premises	16	5	5
		3	3
		6 disinfections	
Shops	71	4	4
Caravans and tents	34	-	-
Smoke abatement	10	-	-
Housing Investigations (tenants requesting support for Council House)	31	-	-
Housing - Overcrowding	2	-	-
Housing - General	314	See Section "Housing"	
Factories	216	See Section "Factories"	
Bakehouses	12	1	1
Butchers Shops	24	2	2
Food Shops and Premises	264	24	21
Restaurants and Cafes	40	3	3
Fried Fish Shops	14	4	4
Ice-Cream Premises	31	-	-
Milk Stores	7	-	-
Market Stalls	149	16	16
Public Houses	20	-	-
Marine Store Dealers	18	-	-
Slaughterhouses	345	11	11

## PREVENTION OF DAMAGE BY PESTS ACT, 1949.

One man is employed by the Council on a part-time basis for the destruction of rats and mice. The Rodent Operator has been fully trained and from time to time has attended Refresher Courses arranged by the Ministry's Infestation Division to keep operators up to date in methods of rodent control. As the Borough grows and spreads under the Expansion Scheme, consideration will have to be given to providing a full time operator to cover the area and to carry out proper surveys and treatments of farms, land, buildings and houses including business premises.

The undermentioned inspections and course of treatments have been carried out in accordance with the provisions of the above Act which states that - "It will be the duty of every Local Authority to take such steps as may be necessary to secure as far as is practicable that their district is kept free from rats and mice."

It will be noted that every dwelling, business premise, farm, allotment - in fact every property within the Borough boundary - received at least one visit during the year.

	Type of Property				
	Non-Agricultural				Agri-cultural
	Local Authority (1)	Dwelling Houses (Inc. Council Houses (2)	All other (Inc. Business Premises) (3)	Total of Cols. 1, 2 & 3 (4)	
Number of properties in Local Authority's District	22	1984	496	2502	23
Total number of properties inspected as a result of notification	-	37	10	47	-
Number of such properties found to be infested by:-					
Common rat (Major)	-	-	-	-	-
(Minor)	-	33	9	42	-
Ship rat (Major)	-	-	-	-	-
(Minor)	-	-	-	-	-
House mouse (Major)	-	-	-	-	-
(Minor)	-	4	1	5	-
Total number of properties inspected in the course of survey under the Act	22	1984	496	2502	23
Number of such properties found to be infested by:-					
Common rat (Major)	-	-	-	-	-
(Minor)	9	57	3	69	10
Ship rat (Major)	-	-	-	-	-
(Minor)	1	-	-	1	-
House mouse (Major)	-	-	-	-	-
(Minor)	-	6	-	6	-



	Type of Property				
	Non-Agricultural				Agri-cultural (5)
	Local Auth- ority (1)	Dwelling Houses (Inc. Council Houses (2)	All other (Inc. Business Premises) (3)	Total of Cols. 1, 2 & 3 (4)	
Number of infested properties treated by the L.A.	10	100	13	123	2
Number of notices served under Section 4 of the Act (a) Treatment (b) Structural Work (i.e., Proofing)	-	-	4	4	9
Number of cases in which default action was taken following the issue of a notice under Sect. 4 of the Act	-	-	1	1	-
	-	-	-	-	-
Note: The above figures in each case relate to the <u>number of properties</u> <u>inspected and not</u> to the number of inspections, infestations or treatments at each property.					



## SUPERVISION OF FOOD SUPPLIES AND PREMISES

### (a) Milk Distribution

As previously reported, the administration and control of the sale of designated milks was transferred to the County Council, which left only the registration and supervision of milk distributors to the Borough. All milk sold in the District is in sealed bottles or containers as received by the distributors from premises outside the District. There were eight distributors registered with the Council and all have been kept under routine observation and only minor contraventions of the Regulations have been noted which were dealt with verbally. Dairies for the bottling of milk and cleansing of utensils have ceased to exist but the premises of the distributors have been suitable for the reception and storage of bottled milk pending distribution.

### (b) Inspection of Meat and Other Foods

I am pleased to report that, in the course of inspection of food premises, no cases were found of unfit food being on display for sale and no instances of food suspected of being unfit reported by members of the public. However, a considerable quantity of food was examined on request and the following is a list of other foods being condemned and destroyed as unfit for human consumption:-

Tomato Puree	..	..	641	x	5	kilo	cans	(3 tons 4 cwts.)
Canned Meat	..	..	..	..	..	..	..	85 lbs.
Vegetables	..	..	..	..	..	..	..	655 tins
Fruit	..	..	..	..	..	..	..	65 tins
Meat	..	..	..	..	..	..	..	39 tins
Fish	..	..	..	..	..	..	..	26 tins
Evaporated Milk	..	..	..	..	..	..	..	16 tins
Milk Puddings	..	..	..	..	..	..	..	2 tins
Biscuits	..	..	..	..	..	..	..	72 packets

(The 655 tins of vegetables included a consignment of 600 x 16 oz. tins of beans damaged by fire in transit).

Disposal was carried out under supervision at the Corporation tip.

(c) Meat Inspection

There are two private slaughterhouses in use, one of which is used solely by the owner for his own butchery business, the other is shared by two butchers. The four remaining butchers in the town "import" carcase meat from outside the district for their retail businesses.

It will be recalled that, following the submission of our Report on Slaughterhouse Facilities in the Borough to the Ministry in September, 1960, January 1st, 1962 was made the "appointed day" for this District when only those slaughterhouses which complied with the "construction regulations" under the Slaughterhouse (Hygiene) and (Prevention of Cruelty) Regulations, 1958 should continue to operate. Work on both slaughterhouses was completed just before the appointed day.

Although the number of animals killed had not been large, some 345 visits were made to the slaughterhouses necessitated by the frequency of slaughtering in small quantities. To maintain almost a 100% inspection service, it was necessary to continue working overtime on 40 Sundays, at Bank Holidays, in the evenings and on some Saturday afternoons. The two beasts not inspected were slaughtered on the middle Sunday of my annual holiday.

The general quality of the animals inspected at the slaughterhouses has been good. The total weight of meat and offal condemned and destroyed as unfit for human consumption was as follows:-

All diseases except Tuberculosis and Cysticerci		Tuberculosis Only	
Offal	Meat	Offal	Meat
363 lbs. (481)	26 lbs. (82)	50 lbs. (18)	122 lbs. (100)

Figures in brackets relate to 1961.

The incidence of disease is little different to 1961 and it will be noted that not one bovine animal showed any tubercular lesions. Although thorough examination of every carcase has been carried out, no cases of cysticercus bovis has been detected amongst the bovine animals slaughtered.

The following table gives details of animals killed, together with information regarding numbers and percentages affected by disease:-



	Cattle excluding Cows	Cows	Calves	Sheep and Lambs	Pigs	Horses
Number killed	309 (244)	-	-	297 (333)	563 (539)	-
Number inspected	307 (244)	-	-	297 (333)	563 (539)	-
<u>All Diseases except Tuberculosis and Cysticercosis</u> Whole carcasses condemned	-	-	-	- (1)	-	-
Carcasses of which some part or organ was condemned	29 (33)	-	-	6 (2)	22 (9)	-
Percentage of the number inspected affected with disease other than tuberculosis and cysticercosis	9.45% (13.52%)	-	-	2.02% (0.9%)	3.91% (1.67%)	-
<u>Tuberculosis only</u> Whole carcasses condemned	-	-	-	-	-	-
Carcasses of which some part or organ was condemned	-	-	-	-	13 (12)	-
Percentage of the number inspected affected with tuberculosis	-	-	-	-	2.31% (2.23%)	-
<u>Cysticercosis</u> Carcasses of which some part or organ was condemned	-	-	-	-	-	-
Carcasses submitted to treatment by refrigeration	-	-	-	-	-	-
Generalised and totally condemned	-	-	-	-	-	-

(Figures in brackets relate to 1961.)

(d) Deadweight Certification of Pigs for Subsidy

One slaughterhouse has been approved as a Deadweight Certification Centre by the Ministry of Agriculture, Fisheries and Food where pigs only may be presented by producers and certified as eligible for the guarantee payments under the Fatstock Guarantee Scheme. Your Public Health Inspector is the appointed Certifying Officer and a fee is payable to the Council for each payment certificate issued. 371 pigs were weighed and certified as eligible for the guarantee payment under the Scheme.

(e) Slaughter of Animals Acts - Slaughterman's Licences

Eight licences were issued to suitable persons authorising them to slaughter animals by approved methods of stunning. One of these was issued only for killing pigs and none authorised the holder to slaughter horses.

(f) The Meat (Staining and Sterilization) Regulations, 1960.

The Cold Store situated on the Industrial Estate received large consignments of Imported beef and sheep lungs and spleens which were unfit for human consumption from the London and Liverpool docks for storage pending delivery to a Pets Food factory for sterilization and processing.

In accordance with the Regulations, notification was received from the Port Authority and close supervision was maintained over the unloading, marking and storage at the Cold Store. In all, some 350 tons of this unfit food passed through the Store.

Food Premises

The legislation governing food premises is contained in the Food and Drugs Act, 1955, and The Food Hygiene Regulations made thereunder and gives local authorities powers to secure the observance of sanitary and cleanly conditions and practices in the handling and wrapping of food. The Regula-



tions lay down requirements relating to food premises, including facilities for personal cleanliness, washing of food and equipment, provision of sinks, wash hand basins with supplies of hot and cold water, and for the general good construction, repair and cleanliness of the structure of food rooms. There are also provisions relating to stalls and the transport and handling of meat.

Regular inspections were made at all the food businesses in the district when advice was given and, where necessary, letters were sent requesting certain works to keep the premises up to the standards required. There were no prosecutions.

In addition to the personal approach on the subject of clean food, abstracts of the requirements of the Regulations, together with posters to bring the attention of food traders and all persons handling food to the importance of preventing contamination of food by flies, dirt, infected hands, etc., were given to all occupiers of food premises. The general shop used to cause some difficulties as regards handling of food, but this is being overcome now with the increased use of pre-packed food, deep freezers and frozen food.

Although it will be a long time before it can safely be said that all food handling premises are perfect and that food handling leaves nothing to be desired, there is an improvement and with frequent supervision and educational advice and the co-operation of the public when they notice unhygienic practices, the required standards will eventually be reached.

The number of food premises registered under Section 16 of the Food and Drugs Act, 1955, is as follows:-

- (1) For the purpose of "the preparation of fish by any process of cooking, for sale for human consumption" ...3
- (2) For the purpose of "the sale of Ice-Cream" .....19
- (3) For the purpose of "the preparation or manufacture of sausages or potted, pressed, pickled or preserved food intended for sale for human consumption including the preparation of meat by any process of cooking" .....7



The number of food premises in the area by type of business is as follows:-

<u>Type of Business</u>	<u>No.</u>
Cafes, Restaurants .. .. .	15
Greengrocers and Grocers .. .. .	24
Confectionery, Cakes, etc. .. .. .	25
Public Houses .. .. .	16
Fish Shops (including fried fish and chips) .. .. .	6
Bakehouses .. .. .	3
General Stores .. .. .	13
Butchers Shops .. .. .	7
Sale of Ice-Cream .. .. .	19

#### Ice-Cream

There are 19 premises registered in accordance with Section 16 of the Food and Drugs Act, 1955, for the sale only of Ice-Cream. In all cases, the Ice-Cream is sold as wrapped.

24 samples were submitted to the Public Health Laboratory for Bacteriological examination and the reports received showed the samples to be graded as follows:-

Grade I .. .. .	17 (excellent)
Grade II .. .. .	5 (satisfactory)
Grade III .. .. .	2 (unsatisfactory)

FACTORIES ACT, 1961.

Part I of the Act

1. Inspections for purposes of provisions as to health  
(including inspections made by Public Health Inspectors).

Premises	Number on Register	Number of		
		Inspections	Written notices	Occupiers prosecuted
(i) Factories in which Sections 1, 2, 3, 4, and 6 are to be enforced by Local Authorities	2 (Slaught- erhouses)	??	7	-
(ii) Factories not included in (i) in which Section 7 is enforced by the Local Authority	73	118	4	-
(iii) Other premises in which Section 7 is enforced by the Local Authority (excluding out- worker's premises)	34	98	-	-
Total	108	216*	11	-

\*It is difficult to give the number of visits at the Slaughterhouses for the purposes of this Act only as these premises are visited at least six times a week for meat inspection. There is therefore strict control over these premises in relation to the provisions of the Factories Act.

# FACTORIES ACT

## Part I of the Act (Cont'd)

Particulars	Number of cases in which defects were found				Number of cases in which prosecutions were instituted
	Found	Remedied	Referred To H.M. Inspector	By H.M. Inspector	
Want of cleanliness	8	8	-	-	-
Overcrowding	-	-	-	-	-
Unreasonable temperature	-	-	-	-	-
Inadequate ventilation	-	-	-	-	-
Ineffective drainage of floors	-	-	-	-	-
Sanitary Conveniences					
(a) Insufficient	-	-	-	-	-
(b) Unsuitable or defective	2	2	-	-	-
(c) For separate sexes	-	-	-	-	-
Other offences against the Act (not including offences relating to Outwork)	1	1	-	-	-
Total	11	11	-	-	-

All factories in the area are also subject to inspection by H.M. Factory Inspectorate and, if they find any unsatisfactory conditions which are enforceable by the local authority, they notify the Council for appropriate action. No such notifications were received during the year. Those factories which are also food premises received many visits during the year but all those visits are not included above for, although any infringements would have been noted, the visit was not primarily made under the Factories Acts.



Part VIII of the Act

Outwork

(Sections 110 and 111)

Nature of Work	No. of out-workers in August list required by Sect. 110 (1) (c)	No. of cases of default in sending lists to the Council	No. of prosecutions for failure to supply lists	No. of instances of work in un-wholesome premises	Notices served	Prosecutions
Wearing apparel making etc.	1	-	-	-	-	-
Cleaning and washing	-	-	-	-	-	-
Total	1	-	-	-	-	-

Other Matters

(i) Agriculture (Safety, Health and Welfare) Provisions Act, 1956.

Visits of inspection have been made at farms to ensure that employees are provided with satisfactory sanitary accommodation, but I regret that such visits have not been frequent owing to pressure of other duties. In general, the farms are small and employees are able to use the accommodation at the farm buildings.

(ii) Shops Acts, 1950.

Routine inspections have been made to ensure that shops

comply with the legislation relating to suitable ventilation, lighting, seating, welfare, sanitary accommodation, washing facilities etc.

The local authority being a Borough Council are also responsible for the Shops Hours of Closing provisions and your Public Health Inspector is the appointed Shops Act Inspector for this purpose. This entails various visits out of normal working hours, during the evening up to 10 p.m. and also Sunday surveys of the area.

The Fifth Schedule of the Act states that "mixed shops" may open on Sunday for the sale only of those goods which are mentioned in the Schedule; notices, in the prescribed form, have to be displayed inside and outside the shop and, as far as practicable, goods which shall not be sold on Sunday shall not be exhibited. Four shops were found not to be complying with these provisions and warning notices were sent to the proprietors concerned, stating that the Council would take proceedings against them under Section 71 of the Act if they continued the contraventions. No further action was found to be necessary.

(iii) Byelaw Control

Many visits have been made at various stages in the erection of private houses and buildings to ensure that the work complies with the Council's Byelaws.

(iv) Diseases of Animals (Waste Foods) Order, 1957.

The provisions of the Order state that proper and adequate plant and equipment together with separate storage for both "boiled" and "unboiled" waste foods or swill shall be provided and that the person responsible for the operation of such plant must hold a licence. The local authority is empowered to grant such licence only if it is satisfied that the plant is adequate to ensure that the waste foods can be boiled in accordance with the requirements of the Order.

The Borough Council is the responsible local authority for licensing swill boiling plants and storage facilities. 14 such licences were continued in 1962.

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In conclusion, I would like to express appreciation and thanks to Members of the Council for their continued support and consideration, and to the Medical Officer and all other members of the staff for their assistance and co-operation.

I have the honour to be, Mr. Chairman, Ladies  
& Gentlemen,

Your obedient Servant,

R. C. R. Robinson,

Public Health Inspector.



A P P E N D I X

LINCOLNE SUTTON AND WOOD

Telephone: Norwich 24555

Cert. No. N.688

Lab. No. 3621/W

Clarence House,  
6 Clarence Road,  
NORWICH.

19th April, 1962.

CERTIFICATE OF ANALYSIS OF WATER

Sample received: 10th April, 1962

Marked: Bore, Fisons Bungalow, Two Mile Bottom.

Appearance when received: clear, trace white deposit.

Nature of Deposit: trace organic debris

Colour: nil Odour: nil

Reaction: faintly alkaline pH: 7.5 Taste: satisfactory

RESULTS OF CHEMICAL ANALYSIS IN PARTS PER MILLION

Ammoniacal nitrogen: nil	Hardness as $\text{CaCO}_3$ :
Albuminoid nitrogen: nil	Total: 235
Nitrate nitrogen: 6.0	Carbonate (temporary): 195
Nitrite nitrogen: nil	Non-carbonate (permanent): 40
Chlorine as chlorides: 2	Alkalinity as $\text{CaCO}_3$ : 195
Oxygen absorbed	Free carbon dioxide: 11.5
(4 hr., 27°C.): nil	Total solids (at 180°C.): 305
	Iron (total): 0.08
	Metals in solution: other than iron - negligible trace

OPINION

This water is of very good organic quality and the analysis as a whole is satisfactory. We understand that the nitrate content had been reported as unsatisfactory, but in the light of the figure reported above we are confidently of the opinion that this water should not produce methaemoglobin-aemia even in a young baby.

The total hardness of the water is about 18° Clark, which is by no means unusual for an East Anglian water, and the iron content is low. In our opinion, this water is fit for drinking and general purposes.

for Lincolne Sutton & Wood Ltd.,  
Signed Eric C. Wood.

LINCOLNE SUTTON AND WOOD

Telephone: Norwich 24555

Clarence House,  
6 Clarence Road,  
NORWICH.

Cert. No. N.1172

Lab. No. 4255/W

CERTIFICATE OF ANALYSIS OF WATER

Sample received: 31st July, 1962 from: Thetford Borough Council

Marked: TBC/62/2C - Deep Well (Mundford Road)

Appearance when received: clear

Nature of Deposit: nil

Colour: nil

Odour: nil

Reaction: neutral pH: 7.2

Taste: Satisfactory

RESULTS OF CHEMICAL ANALYSIS IN PARTS PER MILLION

Ammoniacal nitrogen: 0.05

Hardness as  $\text{CaCO}_3$ :

Albuminoid nitrogen: 0.04

Total: 350

Nitrate nitrogen: 8

Carbonate (temporary): 190

Nitrite nitrogen: nil

Non-carbonate (permanent): 60

Chlorine as chlorides: 20

Alkalinity as  $\text{CaCO}_3$ : 190

Oxygen absorbed

Free carbon dioxide: 28

(4 hr., 27°C.): 0.15

Total solids (at 180°C.): 350

Iron (total): 0.11

Metals in solution: absent

OPINION

There are only minor differences between this analysis and that of the sample submitted in December, 1961; (our Cert. No. N.232). The chloride content has fallen slightly and the nitrate content has risen, but the differences are not significant. The total hardness is unaltered, and on this occasion the sample contained no deposit whatever. In our opinion, this water is free from pollution and suitable for drinking and general purposes.

for Lincolne Sutton & Wood Ltd.,

Signed Eric C. Wood.

LINCOLNE SUTTON AND WOOD

Telephone: Norwich 24555

Clarence House,  
6 Clarence Road,  
NORWICH.

Cert. No. N.1173

Lab. No. 4256/W

13th August, 1962.

CERTIFICATE OF ANALYSIS OF WATER

Sample received: 31st July, 1962 from: Thetford Borough Council

Marked: TBC/62/1C - Bore Hole (Barnham Cross)

Appearance when received: clear

Nature of Deposit: nil

Colour: nil

Odour: nil

Reaction: faintly alkaline pH:7.6 Taste: satisfactory

RESULTS OF CHEMICAL ANALYSIS IN PARTS PER MILLION

Ammoniacal nitrogen: 0.01	Hardness as $\text{CaCO}_3$ :
Albuminoid nitrogen: 0.02	Total: 210
Nitrate nitrogen: 3	Carbonate (temporary): 175
Nitrite nitrogen: nil	Non-carbonate (permanent): 35
Chlorine as chlorides: 14	Alkalinity as $\text{CaCO}_3$ : 175
Oxygen absorbed	Free carbon dioxide: 16
(4 hr., 27°C.): 0.05	Total solids (at 180°C.): 275
	Iron (total): 0.08
	Metals in solution: absent

OPINION

The general characteristics of this analysis are almost exactly the same as those of the previous sample taken in December, 1961; (Cert. No. N.231). The organic quality of this water is very good and in our opinion this water is suitable for drinking and general purposes.

for Lincolne Sutton & Wood Ltd.,

Signed Eric C. Wood.



# BACTERIOLOGICAL EXAMINATION OF WATER

Date	Source	Probable numbers per 100 ml.	
		Coliform bacilli	Bact. coli. (type 1)
7. 3.62	Tap in Fulmerston Road (Public Supply)	0	0
7. 3.62	Tap in Ford Street (Public Supply)	0	0
10. 4.62	Borehole, Two Mile Bottom (Private Supply)	0	0
10. 4.62	Borehole Two Mile Bottom (Private supply)	0	0
12. 4.62	Tap in Guildhall Street (Public Supply)	0	0
12. 4.62	Tap in Mundford Road (Public Supply)	0	0
14. 5.62	Tap in Norwich Road (Public Supply)	0	0
14. 5.62	Tap in Station Road (Public Supply)	0	0
25. 6.62	Tap in St. Nicholas Street (Public Supply)	0	0
25. 6.62	Tap in Bury Road (Public Supply)	0	0
16. 8.62	Tap in Fulmerston Road (Public Supply)	0	0
16. 8.62	Tap in Kimms Belt (Public Supply)	0	0
25. 9.62	Tap in Minstergate (Public Supply)	0	0
25. 9.62	Tap in King Street (Public Supply)	0	0
12.10.62	Tap in Magdalen Street (Public Supply)	0	0
12.10.62	Tap in Mundford Road (Public Supply)	0	0
24.10.62	Well, Olleys Farm (Private Supply)	0	0
24.10.62	Tap in King Street (Public Supply)	0	0
14.11.62	Bore, Fisons Bungalows, Two Mile Bottom (Private Supply)	0	0
14.11.62	Bore, Railway Cottages, Two Mile Bottom (Private Supply)	0	0
14.11.62	Tap in Croxton Road (Public Supply)	0	0
28.11.62	Tap in Guildhall Street (Public Supply)	0	0
28.11.62	Tap in Brandon Road (Public Supply)	0	0
12.12.62	Well, Olleys Farm (Private Supply)	0	0



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